

4.0 FEDERAL AND STATE APPROVALS

4.1 SECTION 4(f) PROPERTIES

Section 4(f) of the U.S. Department of Transportation Act of 1966 (49 United States Code [USC] Section 303 and 23 USC Section 774) mandates that the Secretary of Transportation shall not approve any transportation project requiring the use of publicly owned parks, recreation areas, wildlife and waterfowl refuges, or significant historic sites, regardless of ownership, unless:

- There is no prudent and feasible alternative to using that land, and
- The program or project includes all possible planning to minimize harm to the public park, recreation area, wildlife or waterfowl refuge, or significant historic site, resulting from that use

A final Section 4(f) Evaluation was included in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a) issued by FHWA, FTA, CDOT, and RTD in October 2009. The Final Section 4(f) Evaluation analyzed possible avoidance alternative and presented measures to minimize harm for each Section 4(f) use. It also documents that there are no prudent and feasible alternatives that meet the Purpose and Need of the project and also avoid the use of these resources.

The Preferred Alternative is described in Section 1.1, Preferred Alternative: Managed Lanes, Auxiliary Lanes, and Bus Rapid Transit (With Bikeway), of this ROD. The Proposed Action (Phase 1) is a portion of the Preferred Alternative and is described in Section 1.3, Proposed Action – Phase 1 of the Preferred Alternative, of this ROD. As described in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a), Final Section 4(f) Evaluation, 26 resources are subject to Section 4(f) use with implementation of the Preferred Alternative and 24 of these resources will be impacted by the Proposed Action (Phase 1). The remaining Section 4(f) uses will occur in subsequent phases.

The U.S. Department of Interior (USDO I) received a copy of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a) for review, which identified the Preferred Alternative and contained the Final Section 4(f) Evaluation. The USDO I submitted comments regarding the FEIS on December 17, 2009 (see Appendix B, US 36 Corridor Final Environmental Impact Statement and Final Section 4[f] Evaluation Comment Responses). The USDO I had no comment on the document.

The results of these discussions did not affect the finding made by FHWA in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a), Final Section 4(f) Evaluation, but rather served to clarify the basis for a continued cooperative effort by CDOT and Officials with Jurisdiction to implement the measures identified to minimize harm to the resources. For more on letters and comments received on the FEIS, see Appendix C, Agency Correspondence, and Appendix B, US 36 Corridor Final Environmental Impact Statement and Final Section 4(f) Evaluation Comment Responses.

There will be a use of 24 Section 4(f) resources as a result of the Proposed Action (Phase 1). There are eight recreational resources, 15 historic resources, and one wildlife refuge area as described in Table 4-1, Phase 1 Section 4(f) Resources by Segment.

Table 4-1: Phase 1 Section 4(f) Resources by Segment

Resource Name	Resource Type	Official With Jurisdiction	Use under the Proposed Action (Phase 1)
Adams Segment			
Commissioners Park	Parks and Recreation	Hyland Hills Park and Recreation District	Permanent incorporation of land
Westminster Hills Park	Parks and Recreation	City of Westminster	Permanent incorporation of land
Allen Ditch	Historic	SHPO	Permanent incorporation of land

Table 4-1: Phase 1 Section 4(f) Resources by Segment

Resource Name	Resource Type	Official With Jurisdiction	Use under the Proposed Action (Phase 1)
Westminster Segment			
Big Dry Creek Trail Crossing	Parks and Recreation	City of Westminster	Temporary incorporation of land
Niver Canal	Historic	SHPO	Permanent incorporation of land
Farmers Highline Canal	Historic	SHPO	Permanent incorporation of land
Broomfield Segment			
East Interlocken Park	Parks and Recreation	City of Broomfield	Permanent incorporation of land
East Interlocken Park Trail Crossing	Parks and Recreation	City of Broomfield	Temporary incorporation of land
Residence, 8375 West 120 th Avenue	Historic	SHPO	Permanent incorporation of land
Dry Creek Valley Ditch	Historic	SHPO	Permanent incorporation of land
Community Ditch	Historic	SHPO	Permanent incorporation of land
Equity Ditch	Historic	SHPO	Permanent incorporation of land
Superior/Louisville Segment			
Frank Varra Park	Parks and Recreation	City of Broomfield	Permanent incorporation of land
Coal Creek Trail Crossing	Parks and Recreation	City of Louisville/Town of Superior	Temporary incorporation of land
Coal Creek Ditch	Historic	SHPO	Permanent incorporation of land
Boulder Segment			
Davidson Ditch	Historic	SHPO	Permanent incorporation of land
Goodhue Ditch	Historic	SHPO	Permanent incorporation of land
Shearer Ditch	Historic	SHPO	Permanent incorporation of land
Marshallville Ditch	Historic	SHPO	Permanent incorporation of land
South Boulder Canyon Ditch	Historic	SHPO	Permanent incorporation of land
McGinn Ditch	Historic	SHPO	Permanent incorporation of land
US 36	Historic	SHPO	Permanent incorporation of land
South Boulder Creek Trail Crossing	Parks and Recreation	City of Boulder	Temporary incorporation of land
City of Boulder Open Space	Wildlife Refuge	City of Boulder Open Space	Permanent incorporation of land

Source: US 36 Mobility Partnership, 2009b.

Notes:

SHPO = State Historic Preservation Officer

US 36 = United States Highway 36

Minimization of Harm to Section 4(f) Resources

When no prudent and feasible avoidance alternative exists, Section 4(f) requires that harm to protected resources be minimized. Through the process of selection and refinement of the Proposed Action (Phase 1), FHWA and CDOT worked with stakeholders to identify appropriate measures to minimize harm. These have been included in the Proposed Action (Phase 1) and the rest of the Preferred Alternative, as described below.

- Adequate trail detours and advanced notice and signing prior to beginning of construction will be provided.
- Trails will be returned to their existing or comparable state following construction.
- Trailhead and trail connections to residential and commercial developments will be preserved. Alternative trail routes accomplishing a similar connection will be provided, where trails must be adjusted.
- Trails that must be relocated to a public street due to property acquisition will be enhanced with signs.

- In coordination with local jurisdictions, plans will be prepared and implemented defining the BMP for the site's public safety and security. The plan will include all appropriate access, signing, and public information BMPs.
- Disturbed parkland and wildlife refuge areas disturbed during construction will be restored to their previous condition. Options include seeding with native grasses and forbs. Native shrubs will be added to the mix as appropriate. Trees will be replaced at a 1:1 ratio in locations where soils support the highest probability for re-establishment of vegetation, such as near riparian resources.
- During final design, coordination will occur with public land representatives to reasonably address future park, trail, and open space projects included in adopted plans.
- Compensation for parkland acquisition will be negotiated with the public land's representatives. At minimum, compensation will include comparable replacement of parkland and facilities within approximately 2 miles of the affected resource or adequate compensation, based on fair market appraisals. All acquisition mitigation must conform to the Uniform Act.
- Avoidance and minimization of impact to historic properties and structures will be addressed during final design. Relocation of structures will also be considered.
- A Programmatic Agreement with all parties has been executed for the impact of a historic parcel or structure.
- Impacts to archaeological resources or linear features will be avoided and minimized where possible. Data recovery, excavation, and construction monitoring will be provided.
- Construction impacts to historic resources will be minimized where possible. Examples included the avoidance of staging in these areas, temporary shields to reduce dust, contractor training to prevent flying debris, and providing signage and well-marked alternate routes for access.

See Appendix D, Measures to Minimize Harm from the Proposed Action (Phase 1), for a more complete list of minimization measures.

Section 4(f) Coordination

Formal consultation for purposes of the Section 4(f) Evaluation has been initiated and is expected to continue through the final design of projects implemented as part of the Proposed Action (Phase 1). The consultation and coordination efforts are summarized into two groups: (1) stakeholders of public park, recreation, and wildlife and waterfowl refuges; and (2) stakeholders of historic resources covered under the Section 106 consultation requirements.

Consultation with public park, recreation, and wildlife refuge stakeholders has consisted of numerous personal meetings and correspondence. Meetings focused on amenities, activities, and management of the resources. The project team worked with the stakeholders to identify potential uses from the US 36 corridor expansion and their severity. Meetings also identified possible measures to minimize harm.

Historic resources consultation included meetings with the State Historic Preservation Officer, City of Louisville, Town of Superior, Historic Boulder, Inc., Broomfield Depot Museum, and Colorado Preservation, Inc. The project team has consulted with the SHPO and the consulting parties since 2004 with regard to the identification of historic properties. Because the US 36 Corridor Project is being documented per 36 CFR 800.8(c), the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a) served as the Section 106 consultation document and contained additional information on effect determinations and mitigation for SHPO and consulting party review. Consultation with SHPO for all Section 4(f) historic resources, and written concurrence for *de minimis* uses was obtained to satisfy the requirements of 23 CFR §138 and 49 USC §303. CDOT has also entered into a Programmatic Agreement to address how Section 106 will be conducted as construction projects associated with the Preferred Alternative are undertaken (see Appendix E, Section 106 Programmatic Agreement).

On December 16, 2009, correspondence was received from the USDOJ indicating they had no comments on the Final Section 4(f) Evaluation.

4.2 AIR QUALITY

Air quality impacts from transportation projects generally are considered on both a regional and project level basis. Regional impacts generally are examined by the responsible metropolitan planning organization (MPO) through transportation planning activities such as Regional Transportation Plans and Transportation Improvement Programs.

Local air quality emissions impacts are assessed through carbon monoxide (CO) “hot-spot” computer emissions dispersion modeling. Modeling is required by the USEPA in order to demonstrate that CO emissions at signalized intersections are below the National Ambient Air Quality Standards (NAAQS).

The *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a) discussed the air quality impacts of the Preferred Alternative as well as impacts of other alternatives identified. Additionally, the FEIS discussed the air quality implications of phased project implementation. This project is being phased for air quality conformity because the estimated capital costs for each of the build packages exceeds the current available or planned funding contained in the *Fiscally-constrained 2035 Regional Transportation Plan*, as amended (MPO 2009a), for the US 36 corridor. To accommodate these funding limitations, the Preferred Alternative has been separated into various phases.

Throughout the publication of the FEIS and phasing coordination, several agency actions have occurred in order to complete the air quality conformity and concurrence steps that were required before this ROD could be executed. These actions and accompanying conformity steps for fulfilling additional project level CO hot-spot modeling at the worst intersection outside of the Selected Alternative are described below. Relevant correspondence is included in Appendix C, Agency Correspondence.

Project Level Air Quality Conformity for the Proposed Action (Phase 1)

As discussed in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a), due to the fact that the project area is in attainment/maintenance for CO and PM₁₀, a project level conformity analysis was performed for these two pollutants for the entire Proposed Action (Phase 1). Specifically documented in the FEIS, CO and PM₁₀ hot-spot analyses indicated the project would meet the transportation conformity requirements because the Proposed Action (Phase 1) would not cause or contribute to any new localized CO or PM₁₀ violations, or increase the frequency or severity of any existing violations, or delay timely attainment of the CO or PM₁₀ NAAQS.

As indicated in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a) CO hot-spot analysis section, all project level CO hot-spot modeling results for intersections contained within the Preferred Alternative (and also for the Proposed Action [Phase 1], as discussed below) were within the limits of the NAAQS. Additional CO hot-spot modeling and analysis was conducted for the ROD for the worst performing intersection outside of the Proposed Action (Phase 1) (identified as Dillon Road and McCaslin Boulevard) to demonstrate that CO concentrations at the worst intersections outside of Phase 1 would also be in compliance with the NAAQS. Air quality impacts at Dillon Road and McCaslin Boulevard under the Package 1 (No Action) scenario are considered the worst-case emissions scenario to exist throughout the interim years before the Preferred Alternative and other phases are completely built.

The modeled 1-hour and 8-hour CO concentrations for this worst intersection modeled outside of the Proposed Action (Phase 1) improvements (using 2035 traffic volumes and 2005 emission factors) are 13.71 parts per million (ppm) and 7.80 ppm, which are below the NAAQS. These results indicate that the worst performing intersection outside of the Proposed Action (Phase 1) would not produce CO concentrations exceeding the 1-hour and 8-hour NAAQS (35 ppm and 9 ppm, respectively).

In the months of September and October in 2009, CDOT forwarded letters (presented in Appendix C, Agency Correspondence) reporting the results of the CO hot-spot analyses to Colorado Department of Public Health and Environment (CDPHE) Air Pollution Control Division (APCD) for the Preferred Alternative and for the Proposed Action (Phase 1). In the letters, CDOT indicated that the project improvements would not cause or contribute to any exceedances of the 8-hour CO NAAQS for the Proposed Action (Phase 1). CDOT also signified the intent to select Phase 1 in this ROD and requested the concurrences of APCD based upon the results of the analyses and conclusions with regards to the project. In September and November of 2009, APCD indicated their concurrences by signing and returning a copy of CDOT's results letters (see Appendix C).

Regional Air Quality Evaluation for the Preferred Alternative

As was described in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a), an evaluation of the likely regional air quality impacts of the Preferred Alternative was performed. Because only part of the Preferred Alternative (Phase 1, Proposed Action) is included in the *Fiscally-constrained Element* of the *Fiscally-constrained 2035 Regional Transportation Plan*, as amended [DRCOG 2009a]), this evaluation does not establish conformity for the Preferred Alternative. Rather it demonstrates that the Preferred Alternative would not jeopardize conformity if placed in the *Fiscally-constrained Element* of the *Fiscally-constrained 2035 Regional Transportation Plan*, as amended.

As shown in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a), the evaluation for the expected regional air quality impacts of the Preferred Alternative has been completed as follows:

- DRCOG has run the regional transportation model that consists of the latest *Fiscally-constrained Element* of the *Fiscally-constrained 2035 Regional Transportation Plan*, as amended (2009a) transportation system, with the entire Preferred Alternative and forwarded the results from this modeling effort to CDPHE APCD.
- The CDPHE APCD used the DRCOG model output to calculate 2035 regional emissions for the hypothetical transportation system. APCD reported the results in a letter to CDOT dated October 27, 2009 (see Appendix C, Agency Correspondence). CDPHE APCD reported that based on the modeling results, the Preferred Alternative would not result in significant additional air quality emissions.

Based on the analysis by DRCOG and CDPHE APCD, it appears that construction of future phases of the Preferred Alternative will unlikely create problems with regard to regional air quality conformity. As additional funding becomes available and future phases are advanced, this result will be confirmed through inclusion of such future phases in the fiscally-constrained transportation plans that are in effect at the time that a ROD is prepared for that phase.

Project funding relative to the *Fiscally-constrained 2035 Regional Transportation Plan*, as amended (DRCOG 2009a), was discussed above in Section 1.4, Project Funding Scenario.

Regional Air Quality Conformity for the Proposed Action (Phase 1)

Only Phase 1 (the Proposed Action) of the Preferred Alternative is incorporated into the Draft 2009 Amendment Cycle 1 DRCOG Conformity Determination (CO, PM₁₀, and 1-hour Ozone) for the *Fiscally-constrained Element* of the *Fiscally-constrained 2035 Regional Transportation Plan*, as amended (DRCOG 2009a), and the amended *2008-2013 Transportation Improvement Program (2008-2013 TIP)* (DRCOG 2009b).

In August 2009, the DRCOG board formally adopted the latest (2009 cycle 1) amendments to the *Fiscally-constrained Element* of the *Fiscally-constrained 2035 Regional Transportation Plan*, as amended (DRCOG 2009a), and *2008-2013 TIP* (DRCOG 2009b). These amendments included changes needed to incorporate the Preferred Alternative in its entirety in the Plan (unconstrained) roadway network, and the Proposed Action (Phase 1) in the fiscally-constrained roadway network. With assistance from DRCOG, 2035 traffic data were sent to APCD containing the unconstrained elements of the

Preferred Alternative. The APCD extracted traffic data for each travel link and segment of roadway to calculate VMT and evaluate regional emissions. APCD then was able to make a determination of whether the Preferred Alternative (while not fiscally constrained) would be a project of air quality concern once all phases of the project are funded and constructed.

The *Fiscally-constrained Element* of the *Fiscally-constrained 2035 Regional Transportation Plan*, as amended (DRCOG 2009a), within the Proposed Action (Phase 1), as amended, was also found to meet the air quality conformity requirements. Inclusion of the Proposed Action (Phase 1) in the *Fiscally-constrained Element* of the *Fiscally-constrained 2035 Regional Transportation Plan*, as amended, and *2008-2013 TIP* (DRCOG 2009b) establishes that the first funded phase demonstrates regional conformity with respect to the transportation conformity rule and therefore is not expected to cause significant regional air quality impacts.

4.3 SECTION 106 CONSULTATION PROCESS

CDOT has consulted with the SHPO and consulting parties on determinations of effects of the project to historic resources. Pursuant to 36 CFR Section 800.8(c)(1), in December 2003, FHWA and FTA notified the SHPO and the Advisory Council on Historic Preservation of the intention to substitute part of the Section 106 consultation process for this project with the NEPA requirements. CDOT and FHWA formally arranged to substitute the NEPA documents (DEIS and FEIS) in lieu of separate correspondence. Specifically, the document substitution was intended to provide a more complete opportunity for comments on the effects to National Register of Historic Places-eligible or listed historic properties.

A discussion of mitigation measures for impacts to cultural resources is included in Appendix D, Measures to Minimize Harm from the Proposed Action (Phase 1). A Programmatic Agreement was executed between FHWA, SHPO, FTA, RTD, and CDOT, to mitigate adverse effects to historic resources from the Preferred Alternative. Mitigation consists of the preparation and distribution of a book on the history of irrigation along the US 36 corridor. The book, titled *Digging the Old West: How Dams and Ditches Sculpted an American Landscape* (In Process) will provide the primary form of mitigation. In addition, CDOT will submit Office of Archaeology and Historic Preservation (OAHP) Level I Documentation, including photographs printed on archival paper, for any properties that will be demolished or otherwise adversely affected. CDOT will also submit OAHP Cultural Resource Re-evaluation forms (Form #1405) for any properties that will be changed or modified in order to document changes in the conditions of the properties for OAHP's site files.

The Programmatic Agreement sets forth a process by which CDOT, on behalf of FHWA and FTA where applicable, will re-evaluate effects to existing and new cultural resources as construction projects are funded and designs are refined. FHWA and CDOT have determined that modifications to the Area of Potential Effects; identifying historic properties that are 45 years or older; determining specific effects on historic properties; and consulting concerning measures to avoid, minimize, or mitigate any adverse effects will be re-evaluated as part of the planning for and prior to the approval of the phased construction projects.

In the event that previously unknown cultural deposits are discovered during construction, work will cease in the area of discovery and the CDOT archaeologist will be notified. The CDOT archaeologist, or designated representative, will evaluate any such discovery and, in consultation with SHPO, complete appropriate mitigation measures before construction activities resume. Further, the construction contractor will be responsible for informing all persons associated with this project that they would be subject to prosecution for knowingly disturbing any historic properties or for collecting artifacts.

Additional comments on Section 106 determinations of effect for historic properties from the agencies were received and addressed as noted below.

- Dennis M. Dempsey, Planner/Historical Commission Staff Liaison, Jefferson County, e-mailed comments to state that none of the historic properties were located within the unincorporated Jefferson County area and that the municipalities would be responsible for comments on properties

within their jurisdiction. Mr. Dempsey requested that the Jefferson County Historical Commission be informed of the progress of the FEIS for the US 36 corridor improvements. His comment was noted and does not require a response. Mr. Dempsey was included in the request for comments on the US 36 corridor Section 106 Programmatic Agreement and he did not submit comments.

- Broomfield County provided comments concerning the property located at 8375 West 120th Avenue. The comments concerned the use of the property as the Broomfield School House. Broomfield requested further coordination to relocate the property and a historic documentation of the property. The current survey form for this property does not have any information pertaining to the property being used as a school house. The form will be updated to reflect this important aspect of local history. CDOT recommends having an assessment done to determine whether the house, made of rusticated concrete blocks, can be successfully relocated. In addition, CDOT will prepare historical documentation of the home, to include photos on archival paper, as part of the mitigation for the property.
- In correspondence dated December 3, 2009, SHPO concurred with the recommended Findings of Effect under Section 106 for the properties listed in Chapter 4, Affected Environment and Environmental Consequences, except for the Finding of Effect for 5AM1806/Advent Evangelical Lutheran Church. CDOT determined the Preferred Alternative would result in a Finding of No Historic Properties Affected, but SHPO determined that because the highway will be closer to the historic property and there will be a new sound wall installed, there would be an effect on the historic property but the effect would not be adverse. CDOT agrees with SHPO's comments and recommends the determination of No Adverse Effect for 5AM1806. No further consultation is required for this property.

4.4 CDOT 1601 PROCESS

Approval of the 1601 process by the Colorado Transportation Commission would also be required prior to construction. To date, the 1601 has been signed by the CDOT Chief Engineer and is being presented to the Commission on January 21, 2010, for approval.

4.5 ISSUANCE OF A SECTION 404 PERMIT

Issuance of a Section 404 permit from the USACE will be required prior to impacting any waters of the U.S. See Appendix E, Section 404(b)(1) Evaluation, of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a), for more information.

4.6 ISSUANCE OF A BIOLOGICAL OPINION

A Biological Opinion was received from the U.S. Fish and Wildlife Service (USFWS) on December 9, 2009, and is included in this ROD as Appendix F, Biological Opinion. The requirements of this Biological Opinion will be followed and the mitigation is included in Appendix D, Measures to Minimize Harm from the Proposed Action (Phase 1), of this ROD. Included in this Biological Opinion is a recent change in habitat status. Critical habitat for the Preble's meadow jumping mouse has been proposed since the Biological Assessment was prepared for the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a). In consultation with the USFWS, it was agreed that the Biological Assessment did not need to be amended but that the Biological Opinion would cover this change and include the location, restrictions, and mitigation requirements of this habitat status. Approximately 7 acres of the already assessed habitat that would be impacted is the proposed critical habitat.

4.7 FLOODPLAIN REQUIREMENTS

A Conditional Letter of Map Revision (CLOMR) and Final Letter of Map Revision for 100-year floodplain encroachments from the Federal Emergency Management Agency are required for work in Big Dry Creek being conducted by the Proposed Action (Phase 1), the CLOMR will be prepared during final design. The Final Letter of Map Revision will be prepared after construction is completed.